



Physical Evidence Bulletin

Automobile Lights

Purpose Often during a vehicle collision investigation it is important to determine if vehicle lights were on or off at the time of the collision. Information in this Physical Evidence Bulletin pertains to handling vehicle lamps or any other tungsten bulb.

The Physical Evidence Bulletin (PEB) is a guideline intended for law enforcement agencies for the collection and submission of evidence to BFS Laboratories. Physical Evidence Bulletins are not intended to be used in lieu of training in the collection of evidence.

Analysis and results that may be obtained The Bureau of Forensic Services (BFS) provides analytical support to law enforcement agencies through the examination of automobile lights. If sufficient evidence is submitted (including the filament or portions of it), laboratory examination can sometimes determine if a mechanical (cold) break has occurred or whether a lamp or particular filament was on at the time of the incident.

Precautions The examination of automobile lights necessitates an investigation at the scene to observe and note whether the light switch is "on" or "off". DO NOT, under any circumstances, turn the switch "on" if it is in the "off" position. Also check the possibility of blown fuses, broken wiring, and dead batteries.

Depending upon the case circumstances, other evidence may be present. An investigator may need to consider latent prints, fabric impression, broken glass, shoe/tire prints, blood stains, saliva, and other trace evidence. See the Physical Evidence Bulletins for collection and preservation of other types of physical evidence.

Collection, marking, and packaging If the case circumstances include a suspect vehicle (e.g., hit and run), collect all available auto lamp glass fragments and plastic lens pieces from the scene. A physical fit of the broken pieces remaining in the headlamp or a light assembly of a hit and run vehicle can sometimes be achieved, thereby making a definitive association (for example, the glass came from a particular light assembly and no other).

All vehicle lamps located in and immediately adjacent to the collision impact area should be collected and submitted to the laboratory for examination. This includes headlights and auxiliary lamps such as turn signals, running lights, side marker lights and license

plate lights.

Place samples into separate appropriately sized containers (e.g., do not put very small items into very large envelopes) that help to prevent breakage or loss.

Intact vehicle lamps:

Carefully remove from the vehicle and submit as is, packed well with soft cotton or paper, and cushioned in a rigid box.

Broken lamps and lamp housings:

Carefully dismantle the vehicle headlamp assemblies, insuring that all filaments, filament posts, and glass are included. Mark the location and orientation of the headlamp when on the vehicle. The headlamp mounting bracket and its hardware may need to be removed. If the broken lamp cannot be readily removed from its socket or wiring harness, cut the wiring and submit the lamp in its socket. Collect all loose debris from the lamp housing/lens assemblies. Determine if the filaments are attached to the filament posts. Attempt to locate the filament if unattached, since most of the important information is detectable only on the filament.

Carefully package loose posts, taking care not to contact and damage the fragile filaments. Use disposable foam coffee cups or small cardboard boxes to prevent further damage. Use cotton gauze or tissue padding if needed. SEPARATELY package the very fragile items from the scene and from the vehicle. Do not contact and/or damage fragile filaments.

Submission of evidence to the laboratory

Label the container with the agency case number, item number, and brief description as appropriate. Tape seal the container; date and initial the seal. Submit evidence to the laboratory along with a completed Physical Evidence Submission Form (BFS-1) and, if available, a case report or case summary.

The lab does not accept or process

Non-tungsten bulbs, such as LED.

For further information and additional resources

Please contact your regional BFS laboratory with any further questions that you may have.

For a list of regional laboratories please go to:

http://ag.ca.gov/bfs/pdf/bfs_brochure.pdf or <http://ag.ca.gov/bfs/>

To locate the most current Physical Evidence Bulletins please go to:

<http://ag.ca.gov/cci/reference/reference.php#peb>
